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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/635,978	08/07/2003	Julie M. Tarara	0191.02	1613
25278	7590	09/21/2004	EXAMINER	
USDA-ARS-OFFICE OF TECHNOLOGY TRANSFER PATENT ADVISORS OFFICE WESTERN REGIONAL RESEARCH CENTER 800 BUCHANAN ST ALBANY, CA 94710			DAVIS, OCTAVIA L	
			ART UNIT	PAPER NUMBER
			2855	

DATE MAILED: 09/21/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

AK

<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	10/635,978	TARARA ET AL.	
	<b>Examiner</b>	<b>Art Unit</b>	
	Octavia Davis	2855	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-21 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-21 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |   |  |
|---|--|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. ____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)  | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)            |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date <u>11/20/02, 11/7/03.</u> | 6) <input type="checkbox"/> Other: ____  |

## DETAILED ACTION

### *Claim Rejections - 35 USC § 103*

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1 – 21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Jaharian in view of Brown.

Regarding claims 1, 2, 4, 5, 7, 10 – 12, 14 and 20, Jaharian discloses a method and apparatus for plant culture comprising means for applying tension to a support wire 50 and translating the tension of the support wire into the mass of plant structures 25 supported on the support wire (See Cols. 4 and 5, lines 13 – 15 and 12 – 26) but does not disclose measuring the tension in the wire. However, Brown discloses a wire tension meter comprising a tension measuring device 11 that measures the tension applied to a wire 17 (See Col. 1, lines 61 – 63).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Jaharian according to the teachings of Brown for the purpose of, continuously measuring the tension applied to a moving wire to accurately measure the tension over a wide range of relatively low forces (See Brown, Col. 1, lines 25 - 29).

Regarding claim 3, 8 and 21, in Jaharian, a tension adjuster 39 is connected to the wire 17 for increasing or decreasing the tension of the wire (See Col. 2, lines 11 - 20).

Regarding claims 6 and 13, in Jaharian, a crop is estimated at harvest from the tension of the support wire (See Col. 5, lines 43 – 51).

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Regarding claim 9, in Jaharian, the temperature of the wire is measured.

Regarding claim 19, Jarahian discloses all of the limitations of these claims except for a teaching that the posts, positioned between the end posts, include a pulley. However, in Brown, the wire 17 extends around a pulley 33 located at the end of a pivoting arm 35 mounted at the top of a column 37 (See Col. 2, lines 9 – 11).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Jarahian according to the teachings of Brown for the purpose of, providing a measuring device which applies low inertia forces to a wire to prevent wire breakage due to high acceleration and deceleration of the wire during coiling and winding of the wire (See Brown, Col. 1, lines 32 – 35).

### ***Allowable Subject Matter***

3. Claims 15 – 18 are allowed.

### ***Conclusion***

4. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Boogaart (4,381,838) teaches a system for supporting potted plants in a closed environment.

Varela-Hernandez (4,436,284) discloses a tensed wire suspension system.

Gustafson et al (5,216,922) teach a slope monitoring device including a cable.

Weathers et al (6,021,601) teach a vine training anchor.

Clark (6,578,318) teaches a method and apparatus for raising vine plants.

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5. Any inquiry concerning this communication should be directed to Examiner Octavia Davis at telephone number (571) 272 - 2176. The examiner can normally be reached on Monday - Thursdays (9:00 - 5:00), Fridays off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Edward Lefkowitz, can be reached on (571) 272 - 2180. The fax phone number for the organization where this application where this application or proceeding is assigned is (703) 872 - 9306.

OD

OD/2855

9/17/04

  
EDWARD LEFKOWITZ  
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